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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:	
Applicants:	James B. Costello, *et al.*
Examiner:	Michael A. Cuff
Serial No.:	09/839,295
Filed:	04/20/2001
Group Art:	3627
Atty. Docket:	20-EB-5009/624226-311
For:	Method And System For Graphically Identifying Replacement Parts For Generally Complex Equipment

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APPELLANT'S BRIEF UNDER 37 CFR 41.10

This brief is in furtherance of the Notice of Appeal filed in this application on February 17, 2005.

1. REAL PARTY IN INTEREST - 37 CFR 41.37(c)(1)(i)

The real party in interest in the present Appeal is the assignee of record of the present application, General Electric Company.

2. RELATED APPEALS AND INTERFERENCES - 37 CFR 41.37(c)(1)(ii)

To the best of our knowledge, there is no other appeal, interference or judicial proceeding that is related to or that will directly affect, or that will be directly affected by, or that will have a bearing on the Board's decision in this Appeal.

3. STATUS OF CLAIMS - 37 CFR 41.37(c)(1)(iii)

Claims cancelled: 2.

Claims withdrawn but not cancelled: none.

Claims pending: 1 and 3-20.

Claims allowed: none.

Claims rejected: 1 and 3-20.

Claim rejections appealed: 1 and 3-20.

4. STATUS OF AMENDMENTS - 37 CFR 41.37(c)(1)(iv)

There is no amendment to claims presented subsequent to the final rejection.

5. SUMMARY OF CLAIMED SUBJECT MATTER- 37 CFR 41.37(c)(1)(v)

The present invention is directed in one aspect thereof to a computerized method for self-directed assistance of equipment service personnel in identifying replacement parts for selected locomotive equipment and a selected system thereof while present at an equipment work site to perform a servicing operation for a locomotive. As described in paragraphs 88, 89 and 90 of the publication document for the present patent application, the method allows providing at step 202 (FIG. 8) a database 300 (FIG. 9) comprising detailed parts data about the replacement parts for each assembly of the selected locomotive equipment. The detailed data identifies each part in a selected assembly by providing a series of linked schematic representations of the selected assembly and any subassemblies thereof and respective parts. The series of linked schematic

representations comprises a plurality of graphical hyperlinks embedded on respective visual representations of the selected locomotive equipment. The method allows providing at step 204 a respective locomotive identifier for uniquely identifying the selected equipment onboard the locomotive. A hand-held input/output device 302 is provided for wirelessly communicating with the database as the service person performs the servicing operation for the locomotive. At step 208 the database is accessed to interface with the detailed parts data. At step 210 detailed data about the selected locomotive equipment is retrieved from the database using the respective locomotive identifier for uniquely identifying the selected equipment onboard the locomotive. As exemplarily illustrated in FIG. 10, at least some of the plurality of graphical hyperlinks embedded on the respective visual representations of the selected locomotive equipment are activated for enabling the service personnel to graphically navigate from the selected assembly to any relevant subassembly and replacement parts.

In another aspect thereof the present invention is directed to a computerized system for self-directed assistance of equipment service personnel in graphically identifying replacement parts for selected locomotive equipment and a selected system thereof while present at an equipment work site to perform a servicing operation for a locomotive. As set forth in paragraphs 12, and 88-90 of the publication document, the system includes a database comprising detailed parts data about the replacement parts for each assembly of the selected equipment, with the detailed data identifying each part in a selected assembly by providing a series of linked schematic representations of the selected assembly and any subassemblies thereof and respective parts. The database is responsive to a respective identifier for uniquely identifying the selected equipment. An input/output device is provided for communicating with the database. A data management module is configured to access the database to interface with the detailed parts data. That module is further configured to retrieve from the database detailed data about the selected equipment using the

respective identifier for the equipment, wherein service personnel graphically progresses from the selected assembly to any relevant subassembly and replacement parts by following any appropriate links.

6. GROUNDS OF REJECTION TO BE REVIEWED UPON APPEAL - 37 CFR 41.37(c)(1)(vi)

Claims 1 and 3-20 stand rejected under 35 U.S.C. §102(e) as being anticipated by U.S. patent application publication No. 2001/0032109 A1 (hereinafter referred to as Gonyea).

7. APPENDICES

A copy of the claims 1 and 3-20 involved in this appeal is attached as a claims appendix under 37 CFR 41.37(c)(1)(viii). No evidence appendix under 37 CFR 41.37(c)(1)(xi) or related proceedings appendix under 37 CFR 41.37(c)(1)(x) is required.

8. ARGUMENT 37 CFR 41.37(c)(1)(vii)

A) Rejection of claims 1 and 3-20 under 35 U.S.C. §102(e) as being anticipated by U.S. patent application publication No. 2001/0032109 A1 (Gonyea)

Appellant argues that Gonyea does not support a *prima facie* case of anticipation for claims 1 and 3-20 because Gonyea fails to teach each of the claimed elements and/or operational relationships. With regard to the rejections applied against claims 1 and 3-20, it is appellants' belief that not all of the rejected claims stand or fall together. More specifically, method claims 1 and 3-19 stand together. However, claim 20, directed to a computerized system for

self-directed assistance of equipment service personnel in graphically identifying replacement parts for selected locomotive equipment, should be grouped separately from method claims 1 and 3-19 for purposes of this appeal.

The test for establishing a *prima facie* case of anticipation under §102 "requires the presence in a single prior art reference of each and every element of the claimed invention, arranged as in the claim." (Lindemann Maschinenfabrik GMbH v. American Hoist and Derrick Co., 730 F.2d 1452, 221 USPQ 481,485 (Fed. Cir. 1984)). Furthermore, "there must be no difference between the claimed invention and the referenced disclosure, as viewed by a person of ordinary skill in the field of the invention." Scripps Clinic and Research Found. v. Genentech Inc., 927 F.2d 1565, 18 USPQ2d 1001, 1010 (Fed. Cir. 1991)). Absence from the reference disclosure of any claim element and/or operational interrelationship negates anticipation under §102.

A.1) Arguments regarding claims 1 and 3-18

With regard to claims 1 and 3-18, independent claim 1 is directed to a computerized method for self-directed assistance of equipment service personnel in identifying replacement parts for selected locomotive equipment and a selected system thereof while present at an equipment work site to perform a servicing operation for a locomotive.

The Examiner relies on Gonyea to reject claim 1 under 35 U.S.C. §102. Gonyea is directed to a system and method for predicting the timing and costs of future service events for a product. See Abstract of Gonyea. It is respectfully submitted that Gonyea's main applicability, as described by Gonyea, is directed to predicting costs and a maintenance schedule for the duration of a long term service agreement for a product, as opposed to a method and system for self-directed assistance of equipment service personnel in identifying replacement parts for selected locomotive equipment while present at an equipment work site to perform a servicing operation for a locomotive during the actual performance of such operations. Although Gonyea's scheduling and cost prediction system

can be used in a locomotive, the basic fact remains that Gonyea is not directed to solving problems encountered by service personnel that performs actual hands-on maintenance operations for the product. By way of comparison, Gonyea is directed to facilitate the planning of such operations *for future performance*. Consequently, at least some of the structural and operational relationships claimed in the present invention are lacking in Gonyea. Below is a description of exemplary grounds as to why claim 1 is not anticipated or otherwise rendered unpatentable by Gonyea.

Gonyea fails to teach graphical hyperlinks for the identification of parts.

Claim 1 is directed to a computerized method for servicing a locomotive and identifying replacement parts for selected locomotive equipment. A service person is equipped to perform the action of identifying the replacement parts, as that personnel performs a servicing operation for the locomotive. In contrast to the claimed invention, Gonyea is not concerned with communicating any information to a service personl while that service person performs an actual repair of equipment while on site. Gonyea is concerned with assisting a maintenance planner to arrange for the yearly or daily maintenance planning for a product and for predicting costs associated with such future maintenance services.

More particularly, claim 1 recites that each part is identified by providing a series of linked schematic representations of the selected assembly and any subassemblies thereof and respective parts. The series of linked schematic representations comprises a plurality of graphical hyperlinks embedded on respective visual representations of the selected locomotive equipment. Activation of at least some of the plurality of graphical hyperlinks embedded on the respective visual representations of the selected locomotive equipment enables the service personnel to graphically navigate from the selected assembly to any relevant subassembly and replacement parts. By way of comparison,

Gonyea does not use any graphical hyperlinks embedded on respective visual representations of the selected locomotive equipment for selecting a piece of equipment to look at. Gonyea discloses at paragraph 20 design curves 48 that include graphical representations *of the performance* of a part, in terms of operating hours, for a given set of operating conditions. However, these graphical representations *of the performance* of a part are used for predicting when a part should be replaced and have nothing to do with using graphical hyperlinks embedded on respective visual representations of the selected locomotive equipment so that the technician is able to select a piece of equipment to look at in order to perform a servicing task. Gonyea clearly discloses in great level of detail information for determining future inspection of parts and associated costs, such as information regarding operational conditions and design parameters for the parts. However, none of these aspects of Gonyea are designed to provide graphical hyperlinks embedded on respective visual representations of the selected locomotive equipment so that the technician is able to select a piece of equipment to look at in order to perform a servicing task.

Once again, applicant respectfully stresses that Gonyea's applicability is for the planning of future maintenance events and not for present performance of such events on the equipment work site, and, thus, it is respectfully submitted that Gonyea fails to teach or suggest the above-noted operational and/or structural relationships, and, consequently, does not, and cannot anticipate claim 1 under the statutory standards of § 102. Since each of claims 3-18 that depend from claim 1 includes the structural and/or operational relationships respectively recited in such independent claim 1, it is also respectfully submitted that Gonyea also fails to anticipate or otherwise render unpatentable each of such dependent claims.

Accordingly, it is not believed that there is any description or suggestion in Gonyea that meets the structural and/or operational relationships set forth in appellant's claim 1. Anticipation under 35 U.S.C. §102 requires that "The identical invention must be shown in as complete detail as contained in the

...claim." (In re Bond, 910 F.2d 831, 15USPQ2d 1566 (Fed. Cir. 1990)). Accordingly, it is submitted that Gonyea fails to anticipate or otherwise render unpatentable claim 1 and dependent claims 3-18. Thus, the rejection of claims 1- and 3-18 under 35 U.S.C. §102(e) is not supported by the cited art and should be reversed.

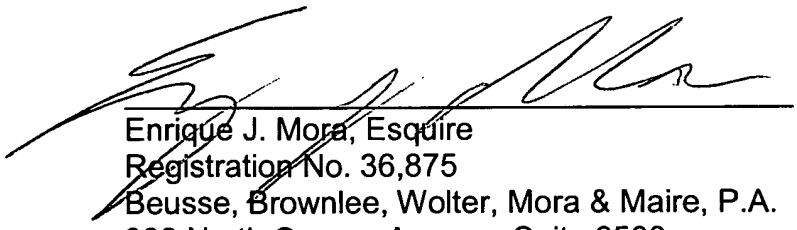
A.2) Arguments regarding claim 19

Claim 19 is directed to a computerized method for self-directed assistance of equipment service personnel identifying replacement parts for selected locomotive equipment and a selected system thereof while present at an equipment work site to perform a servicing operation for a locomotive. Detailed parts data, as may be stored in a database, includes graphical reproductions of the selected equipment with each reproduction being arranged into selectable segments comprising a plurality of graphical hyperlinks embedded on such graphic representations of the selected locomotive equipment. At least some of the plurality of graphical hyperlinks embedded on the respective graphical representations of the selected locomotive equipment are activated for remotely retrieving from the database detailed parts data about a selected assembly using a level of representation sufficiently detailed to enable service personnel to perform a desired service of the selected assembly. It is respectfully submitted that Gonyea fails to anticipate or otherwise render unpatentable claim 19 since Gonyea fails to teach or suggest the structural and/or operational relationships respectively recited in claim 19. More particularly, Gonyea fails to describe detailed parts data including graphical reproductions of the selected equipment with each reproduction being arranged into selectable segments comprising a plurality of graphical hyperlinks embedded on such graphic representations of the selected locomotive equipment.

A.3) Arguments regarding claim 20

Claim 20 is directed to a computerized system for servicing a locomotive and identifying replacement parts for selected locomotive equipment and a selected system thereof. The identification of the parts is performed by a service person as that person performs a servicing operation for the locomotive. Claim 20 in part recites a database comprising detailed parts data about the replacement parts for each assembly of the selected locomotive equipment, with the detailed data identifying each part in a selected assembly by providing a series of linked schematic representations of the selected assembly and any subassemblies thereof and respective parts. The database is responsive to a respective locomotive identifier for uniquely identifying the selected equipment onboard said locomotive, wherein said series of linked schematic representations comprises a plurality of graphical hyperlinks embedded on respective visual representations of the selected locomotive equipment. It is respectfully submitted that Gonyea fails to anticipate or otherwise render unpatentable claim 20 since Gonyea fails to teach or suggest a database having the structural and/or operational relationships recited in claim 20.

Respectfully submitted,



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CLAIMS APPENDIX

37 CFR 41.37(c)(1)(viii)

1. A computerized method for self-directed assistance of equipment service personnel in identifying replacement parts for selected locomotive equipment and a selected system thereof while present at an equipment work site to perform a servicing operation for a locomotive, said method comprising:

providing a database comprising detailed parts data about the replacement parts for each assembly of the selected locomotive equipment, with the detailed data identifying each part in a selected assembly by providing a series of linked schematic representations of the selected assembly and any subassemblies thereof and respective parts, wherein said series of linked schematic representations comprises a plurality of graphical hyperlinks embedded on respective visual representations of the selected locomotive equipment;

providing a respective locomotive identifier for uniquely identifying the selected equipment onboard said locomotive;

providing a hand-held input/output device for wirelessly communicating with the database as said personnel performs the servicing operation for said locomotive;

accessing the database to interface with the detailed parts data;

retrieving from the database detailed data about the selected locomotive equipment using the respective locomotive identifier for uniquely identifying the selected equipment onboard said locomotive; and

activating at least some of the plurality of graphical hyperlinks embedded on the respective visual representations of the selected locomotive equipment for enabling said service personnel to graphically navigate from the selected assembly to any relevant subassembly and replacement parts.

3. The method of claim 1 wherein the input/output device communicates with the database while at a remote service site for the equipment.

4. The method of claim 1 wherein the detailed parts data for the selected equipment is downloaded to the input/output device.

5. The method of claim 1 wherein the input/output device interfaces with the detailed parts data while the detailed parts data is resident in the database.

6. The method of claim 1 wherein the detailed parts data includes graphical reproductions of the selected equipment with each reproduction being arranged into selectable segments and each segment being expandable for identifying replaceable parts therein.

7. The method of claim 1 wherein the detailed parts data includes a searchable parts field.

8. The method of claim 7 wherein the searchable parts field is selected from the group comprising part name, part number and part description.

9. The method of claim 7 wherein the parts field is searchable based on visual representations of the part.

10. The method of claim 1 wherein the detailed parts data includes a list of substitute parts for each assembly.

11. The method of claim 6 wherein the graphical reproductions are configured to display part names, part numbers, and part descriptions for each selected segment of the reproduction.

12. The method of claim 1 wherein each schematic representation is expandable by selecting any section thereof using a computer-readable pointer.

13. The method of claim 10 wherein the database includes reliability and performance data for parts and substitutes therefor.

14. The method of claim 1 wherein the component identity includes manufacturer and user part numbers.

15. The method of claim 1 wherein said input/output device comprises a Web-enabled input/output device.

16. The method of claim 1 wherein said database is configured to gather ordering information regarding parts needed to service the selected equipment.

17. The method of claim 16 wherein the ordering information includes an on-line shopping basket for accumulating multiple parts to be ordered.

18. The method of claim 17 wherein the database is configured to provide cost data for each part, including shipping costs.

19. A computerized method for self-directed assistance of equipment service personnel identifying replacement parts for selected locomotive equipment and a selected system thereof while present at an equipment work site to perform a servicing operation for a locomotive, said method comprising:

providing a database comprising detailed parts data about the replacement parts for each assembly of the selected locomotive equipment, with the detailed data identifying each part in a selected assembly, schematic representations of the selected assembly and its subassemblies and respective parts, wherein the detailed parts data includes graphical reproductions of the selected equipment with each reproduction being arranged into selectable segments comprising a plurality of graphical hyperlinks embedded on such graphic representations of the selected locomotive equipment, and each segment being expandable from a top-level representation to a detailed-level representation for any selected assembly for identifying replaceable parts thereof; and

activating at least some of the plurality of graphical hyperlinks embedded on the respective graphical representations of the selected locomotive equipment for remotely retrieving from the database detailed parts data about a selected assembly using a level of representation sufficiently detailed to enable service personnel to perform a desired service of the selected assembly.

20. A computerized system for self-directed assistance of equipment service personnel in graphically identifying replacement parts for selected locomotive equipment and a selected system thereof while present at an equipment work site to perform a servicing operation for a locomotive, said system comprising:

a database comprising detailed parts data about the replacement parts for each assembly of the selected locomotive equipment, with the detailed data identifying each part in a selected assembly by providing a series of linked schematic representations of the selected assembly and any subassemblies thereof and respective parts, said database responsive to a respective locomotive identifier for uniquely identifying the selected equipment onboard said locomotive, wherein said series of linked schematic representations comprises a plurality of graphical hyperlinks embedded on respective visual representations of the selected locomotive equipment;

a hand-held input/output device for wirelessly communicating with the database as said personnel performs the servicing operation for said locomotive; and

a data management module configured to access the database to interface with the detailed parts data, said module further configured to retrieve from the database detailed data about the selected equipment using the respective identifier for the equipment, wherein activation of at least some of said graphical hyperlinks embedded on the respective visual representations of the selected locomotive equipment allows said service personnel to graphically navigate from the selected assembly to any relevant subassembly and replacement parts.

CERTIFICATE OF MAILING

I HEREBY CERTIFY that this Appeal Brief is being mailed to: Mail Stop Appeal Brief-Patents, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this 15th day of April, 2005.

Kathy L. Tissue

Kathy L. Tissue

PTO/SB/21 (09-04)
Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

Total Number of Pages in This Submission

Application Number	09/839,295
Filing Date	04/20/2001
First Named Inventor	James Costello
Art Unit	3627
Examiner Name	Michael A. Cuff
Attorney Docket Number	20-EB-5009/624226-311

ENCLOSURES *(Check all that apply)*

- [x] Fee Transmittal Form
  - [ ] Fee Attached
- [ ] Amendment/Reply (w/Attachment)
  - [ ] After Final
  - [ ] Affidavits/declaration(s)
- [ ] Extension of Time Request
- [ ] Express Abandonment Request
- [ ] Information Disclosure Statement
- [ ] Certified Copy of Priority Document(s)
- [ ] Reply to Missing Parts/ Incomplete Application
  - [ ] Reply to Missing Parts under 37 CFR 1.52 or 1.53
- [ ] Drawing(s)
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- [ ] Petition to Convert to a Provisional Application
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- [x] Appeal Communication to TC **(Appeal Notice, Brief, Reply Brief)**
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- [x] Other Enclosure(s) (please Identify below):
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Remarks

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm Name	Beusse Brownlee Wolter Mora & Maire, P.A.		
Signature	*Enrique J. Mora*		
Printed name	Enrique J. Mora		
Date	April 15, 2005	Reg. No.	36,875

CERTIFICATE OF TRANSMISSION/MAILING

I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below:

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PTO/SB/17 (12-04)
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U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Effective on 12/08/2004.
Fees pursuant to the Consolidated Appropriations Act, 2005 (H.R. 4818).

FEE TRANSMITTAL
For FY 2005

☐ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT	($) 500.00

Complete if Known	
Application Number	09/839,295
Filing Date	04/20/2001
First Named Inventor	James Costello
Examiner Name	Michael A. Cuff
Art Unit	3627
Attorney Docket No.	20-EB-5009/624226-311

METHOD OF PAYMENT (check all that apply)

☐ Check ☐ Credit Card ☐ Money Order ☐ None ☐ Other (please identify): _____

☑ Deposit Account Deposit Account Number: 07-0846 Deposit Account Name: General Electric Company

For the above-identified deposit account, the Director is hereby authorized to: (check all that apply)

☑ Charge fee(s) indicated below ☐ Charge fee(s) indicated below, except for the filing fee

☑ Charge any additional fee(s) or underpayments of fee(s) under 37 CFR 1.16 and 1.17 ☑ Credit any overpayments

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FEE CALCULATION

1. BASIC FILING, SEARCH, AND EXAMINATION FEES

	FILING FEES		SEARCH FEES		EXAMINATION FEES		
Application Type	Fee ($)	Small Entity Fee ($)	Fee ($)	Small Entity Fee ($)	Fee ($)	Small Entity Fee ($)	Fees Paid ($)
Utility	300	150	500	250	200	100	
Design	200	100	100	50	130	65	
Plant	200	100	300	150	160	80	
Reissue	300	150	500	250	600	300	
Provisional	200	100	0	0	0	0	

2. EXCESS CLAIM FEES

Fee Description	Fee ($)	Small Entity Fee ($)
Each claim over 20 or, for Reissues, each claim over 20 and more than in the original patent	50	25
Each independent claim over 3 or, for Reissues, each independent claim more than in the original patent	200	100
Multiple dependent claims	360	180

Total Claims	Extra Claims	Fee ($)	Fee Paid ($)
_____ - 20 or HP =	_____	x _____	= _____

HP = highest number of total claims paid for, if greater than 20

Indep. Claims	Extra Claims	Fee ($)	Fee Paid ($)
_____ - 3 or HP =	_____	x _____	= _____

HP = highest number of independent claims paid for, if greater than 3

Multiple Dependent Claims	Fee ($)	Fee Paid ($)
	_____	_____

3. APPLICATION SIZE FEE

If the specification and drawings exceed 100 sheets of paper, the application size fee due is $250 ($125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).

Total Sheets	Extra Sheets	Number of each additional 50 or fraction thereof	Fee ($)	Fee Paid ($)
_____ - 100 =	_____ / 50 =	_____ (round up to a whole number)	x _____	= _____

4. OTHER FEE(S)

	Fees Paid ($)
Non-English Specification, $130 fee (no small entity discount)	
Other: Filing a brief in support of an appeal -$500.00	

SUBMITTED BY

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Name (Print/Type)	Enrique J. Mora		Date April 15, 2005